

Remarks/Arguments

In response to the Final Office Action, the Applicants offer the following remarks.

Original claims 1 to 29 were examined. Claim 20 was cancelled. Claims 1, 3 to 7, 10, 13 and 14 are currently amended. Claims 18, 19 and 21 to 29 are presently cancelled. New claims 30 to 32 are added. Support for the amendments can be found throughout the present patent application including the drawings and claims as originally filed. Claims 1 to 10, 13 to 17 and 30 to 32 are pending; the patent application contains eighteen (18) claims. In addition to the amendments requested above, the Applicants offer the following remarks.

A. Examiner Interview

First, the Applicants appreciate the opportunity given their counsel (Marc Gagnon) to discuss the subject matter of the claimed invention in a telephone interview with Examiner Graham on December 14, 2005. The Applicants make the substance of the interview of record, in compliance with 37 C.F.R. §§ 1.2 & 1.133(b) and M.P.E.P. § 713.04, as follows. The interview focused on the subject matter recited in claim 1 and the ways in which that subject matter is patentably distinguishable from U.S. Patent 5,407,195 (Tiitola). Potential amendments in order to further distinguish claim 1 from Tiitola were also discussed.

B. Rejections Under Sections 102 and 103

The Final Office Action rejected:

- claims 1, 6, 18 and 19 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,407,195; and
- claims 2 to 5 and 21 to 26 under 35 U.S.C. §103(a) as being unpatentable (obvious) over Tiitola in view of U.S. Patent 4,358,113 (McKinnon).

The Applicants respectfully request reconsideration of these rejections in view of the following remarks.

C. Patentability of Claims 1 to 10, 13 to 17 and 30

Claim 1 has been amended in order to further specify features that are neither disclosed nor suggest by Tiitola. The Applicants direct the Examiner's attention to the following highlighted features:

1. A hockey stick blade with a shank and a blade element having a front external surface and a rear external surface, said hockey stick blade comprising:
 - (a) a core made of thermo-expandable foam and extending along a longitudinal axis;
 - (b) a first layer of fibers at least partially wrapping over said core; said first layer of fibers being impregnated with a suitable resin;
 - (c) a second layer of fibers at least partially wrapping over said first layer of fibers, said second layer of fibers being impregnated with a suitable resin; and
 - (d) **a sheet of thermoplastic material covering at least partially said second layer of fibers, said sheet of thermoplastic material forming part of one of said front and rear external surfaces of said blade element for increasing the impact resistance of said blade.**

In the Final Office Action, the Examiner indicated that Tiitola discloses a foam core, fiber layers 24, 25, 26, 27 and thermoplastic layers 28, 29 (fibers embedded in thermoplastic).

According to MPEP § 706.02, in order to reject a claim under 35 U.S.C. § 102(b) as being anticipated by Tiitola, the Examiner must determine that such reference teaches every aspect of

the claimed invention either explicitly or implicitly. Any feature not directly taught must be inherently present.

The Applicants respectfully submit that the Examiner has erred in his assertion that Tiitola teaches a blade comprising “a sheet of thermoplastic material for increasing the impact resistance of the blade” as recited in claim 1.

The blade of Tiitola comprises foam strips 22 inserted in a channeled fabric. As shown in Figures 6 and 7, each of the channels of fabric is made of cross-over weave members 24, 25 and upper and lower weave members 26, 27 which connect up with the cross-over weave member 24, 25 for covering a foam strips. As indicated in Tiitola, the channeled fabric comprises a plurality of interwoven fiber (e.g. glass) strands and is impregnated with a suitable resin (Column 10, lines 45-48).

As shown in Figure 8, the rib preform shown in Figure 7 is covered by reinforcing fabrics 28, 29 and the face members 7, 8 of the cured blade comprise the respective reinforced layers 28, 29 as well as the portions 26 and 27 of the channel/strip members of the rib preform.

As indicated in Tiitola, the layers 28, 29 are made of fabric impregnated with a suitable resin:

“The reinforcing fabric 28 and 29 is also impregnated with a suitable resin” (Column 11, lines 21-23)

The cured blade of Tiitola therefore comprises foam strips covered by a first layer of fibers (26, 27) impregnated with a suitable resin and a second layer of fibers (28, 29) impregnated with a suitable resin and covering the first layer of fibers (26, 27).

Clearly, the second layer (28, 29) cannot be qualified as a “thermoplastic sheet” since this layer (28, 29) is of the same nature as the first layer (26, 27), i.e. a layer of fibers impregnated with a suitable resin.

There are therefore no grounds for an anticipation rejection since Tiitola does not teach nor suggest a sheet of thermoplastic material as recited in claim 1.

Moreover, claim 1 calls for a sheet of thermoplastic material covering a second layer of fibers while the blade of Tiitola comprise a layer of fibers covering a first layer of fibers. In other words, while the blade of Tiitola comprises two (2) layers (first layer of fibers (26, 27) and a second layer of fibers (28, 29)) covering the foam strips, the claimed blade comprises three (3) layers (a first layer of fibers, a second layer of fibers and a third external layer made of a sheet of thermoplastic material. This difference further distinguishes the claimed blade over Tiitola.

In view of the above, the Applicants respectfully request withdrawal of the Examiner’s rejection of amended claim 1 pursuant to 35 U.S.C. § 102(b) and allowance of claim 1. Because claims 2 to 10, 13 to 17 and 30 depend directly or indirectly from claim 1 and include by reference all of the features recited in claim 1, these claims are also patentable.

D. Patentability of New Claims 31 and 32

New claim 31 reads as follows:

31. A hockey stick blade with a shank and a blade element having a front external surface and a rear external surface, said hockey stick blade comprising:

- (a) a core made of thermo-expandable foam and extending along a longitudinal axis;
- (b) a first layer of fibers at least partially wrapping over said core; said first layer of fibers being impregnated with a suitable resin;
- (c) a second layer of fibers at least partially wrapping over said first layer of fibers, said second layer of fibers being impregnated with a suitable resin; and
- (d) front and rear thermoplastic sheets covering at least partially said second layer of fibers, said front and rear thermoplastic sheets forming part of said respective front and rear external surfaces of said blade element for increasing the impact resistance of said blade, said front and rear thermoplastic sheets being made of thermoplastic material selected from the group consisting of polyethylene, polyurethane, polypropylene, polyester, polystyrene, polyvinyl chloride and cellulose acetate.

For the same reasons as those set for claim 1, the Applicants submit that new claim 31 is patentable over Tiitola. The Examiner will also appreciate that nowhere in Tittola does the inventor disclose or suggest the use of front and rear thermoplastic sheets made of thermoplastic material selected from the group consisting of polyethylene, polyurethane, polypropylene, polyester, polystyrene, polyvinyl chloride and cellulose acetate as recited in claim 31.

Hence, the Applicants respectfully request allowance of new claim 31. Because claim 32 depends from claim 31 and includes by reference all of the features recited in claim 31, claim 32 is also patentable.

CONCLUSION

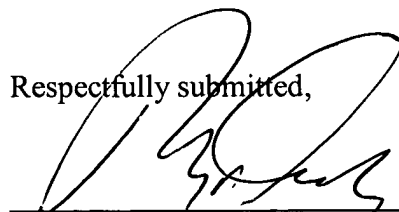
In view of the above amendments and remarks, it is submitted that each of pending claims 1 to 10, 13 to 17 and 30 to 32 is in condition for allowance and the rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) should be withdrawn.

The Examiner is invited to call the Applicants' undersigned patent agent if any further amendments will expedite the prosecution of the present patent application or if the Examiner has any suggestions or questions concerning this application or the present response. If the claims are not believed to be in full condition for allowance, the Applicants respectfully request the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP § 707.07(j) or in making constructive suggestions pursuant to MPEP § 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

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Respectfully submitted,



Ralph A. Dowell, Reg. No. 26,868
DOWELL & DOWELL, P.C.
Suite 406
2111 Eisenhower Avenue
Alexandria, VA 22202-3124
U.S.A.
Tel : (703) 415-2555

Fax : (703) 415-2559